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FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

**Midwest Rail, Inc.
1539 Estella Avenue
Fort Wayne, Indiana 46803**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 003-11492-00307	
Issued by:Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: December 5, 2002 Expiration Date: December 5, 2007

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary railroad equipment manufacturing source.

Authorized Individual:	President
Source Address:	1539 Estella Avenue, Fort Wayne, Indiana 46803
Mailing Address:	1539 Estella Avenue, Fort Wayne, Indiana 46803
General Source Phone Number:	260 - 493 - 3106
SIC Code:	3743
County Location	Allen
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) One (1) bar saw, known as 1114 M, installed in 1994, equipped with a baghouse, known as Baghouse #1 (1951 M), installed in 2002, exhausting through Stack S1, capacity: 1,300 pounds of metal bars per hour or 20 bars per hour and 73.5 cuts per hour.
- (b) One (1) Wheelabrator blaster, known as 1023 A, equipped with a baghouse, known as Baghouse #2 (1950 A), exhausting through Stack S2, installed in 1989, capacity: 400 pounds of steel shot per hour and 1,300 pounds of metals bars per hour or 20 bars per hour.
- (c) One (1) bar grinding operation, known as 1020 M, exhausting through Stack S4, installed in 1989, capacity: 1,300 pounds of metals bars per hour or 20 bars per hour.
- (d) One (1) bar blaster, known as Clemco Blaster #1 (1041 M), installed in 1989, equipped with a baghouse, known as Baghouse #3 (2003 M), installed in 2002, exhausting inside the building, capacity: 50 pounds of GH-25/40 grit per hour and 1,300 pounds of metals bars per hour or 20 bars per hour.
- (e) One (1) pedestal grinder, known as 1953 M, equipped with a cyclone dust collector, known as 2001 M, installed in 1989, capacity: 1,300 pounds of metals bars per hour or 20 bars per hour.
- (f) One (1) rail cutting operation, capacity: 18,800 pounds of rails per hour or 10 rails per hour and 15 cuts per hours, consisting of:

- (1) One (1) Del saw, known as 1121 M, installed 1998, equipped with a baghouse, known as Baghouse #2 (1950 A), installed in 2002, exhausting through Stack S2.
- (2) One (1) miter wet cut saw, known as 1120 M, installed in 1995, equipped with a baghouse, known as Baghouse #4 (2004 M), installed in 2002, exhausting inside the building.
- (3) One (1) straight wet cut rail saw, known as 1026 M, installed in 1989, equipped with a baghouse, known as Baghouse #5 (2005 M) installed in 2002, exhausting inside the building.
- (g) One (1) rail grinding operation, known as 2002 M, installed in 1989, capacity: 18,800 pounds of rails per hour or 10 rails per hour.
- (h) One (1) rail blaster, known as Clemco Blaster #2 (1029 M), installed in 1989, equipped with a baghouse, known as Baghouse #3 (2003 M), installed in 2002, exhausting inside the building, capacity: 100 pounds of GH-25/40 grit per hour and 18,800 pounds of rails per hour or 10 rails per hour.
- (i) One (1) bar cleaning operation, installed in 1989, capacity: 1,300 pounds of metals bars per hour or 20 bars per hour.
- (j) One (1) bar gluing operation, installed in 1989, capacity: 1,300 pounds of metals bars per hour or 20 bars per hour.
- (k) One (1) rail cleaning operation, installed in 1989, capacity: 18,800 pounds of rails per hour or 10 rails per hour.
- (l) One (1) rail assembly operation, installed in 1989, capacity: 20,362 pounds of rails, bars and bolts per hour.
- (m) One (1) rail finishing operation, known as 1091 M, equipped with airless spray applicators or brush applicators, installed in 1989, capacity: 20,362 pounds of rails, bars and bolts per hour and 10 rail joints per hour.
- (n) One (1) natural gas-fired heater - bar oven, known as 1050 M, consisting of eight (8) heaters, exhausting through Stack S3, installed in 1989, rated at 0.06 million British thermal units per hour each (deemed an insignificant activity).
- (o) Two (2) natural gas-fired power-vented unit heaters, known as Heaters #1 and #2, installed prior to 1989, rated at 0.5 million British thermal units per hour each (deemed an insignificant activity).
- (p) Eight (8) natural gas-fired power-vented unit heaters, known as Heaters #3 through #10, installed in 2001, rated at 0.4 million British thermal units per hour each (deemed an insignificant activity).

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour with a total rating of 4.68 million British thermal

units per hour consisting of:

- (1) One (1) natural gas-fired heater - bar oven, known as 1050 M, consisting of eight (8) heaters, exhausting through Stack S3, installed in 1989, rated at 0.06 million British thermal units per hour each.
 - (2) Two (2) natural gas-fired power-vented unit heaters, known as Heaters #1 and #2, installed prior to 1989, rated at 0.5 million British thermal units per hour each.
 - (3) Eight (8) natural gas-fired power-vented unit heaters, known as Heaters #3 through #10, installed in 2001, rated at 0.4 million British thermal units per hour each.
- (b) Combustion source flame safety purging on startup.
 - (c) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons. (One (1) approximately 250 gallon gasoline tank).
 - (d) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month. (One (1) approximately 250 gallon diesel tank).
 - (e) The following VOC and HAP storage containers: Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids (drums).
 - (f) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.
 - (g) Machining where an aqueous cutting coolant continuously floods the machining interface (drilling).
 - (h) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment (maintenance).
 - (i) Water based adhesives that are less than or equal to 5 percent by volume of VOCs excluding HAPs.
 - (j) Replacement or repair of bags in baghouses and filters in other air filtration equipment.
 - (k) Paved and unpaved roads and parking lots with public access.
 - (l) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

- (1) incorporated as originally stated,
- (2) revised, or
- (3) deleted

by this permit.

- (b) All previous registrations and permits are superseded by this permit.

SECTION B

GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual"

as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

- (c) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967
 - (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

or

Facsimile No.: 317-233-5967

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
- (2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
 - (1) A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
 - (2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the

applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

- (c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4320 (ask for OAQ, I/M and Billing Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

- (a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than one hundred (100) pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than one hundred (100) pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
 - (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable.
 - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred and fifty (250) tons per twelve (12) consecutive month period.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or

(C) Waste disposal site.

- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.10 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require

certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

- (b) Whenever a condition in this permit requires the measurement of a temperature, or flow rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
- (c) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.
- (d) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ninety (90) days from the date of issuance of this permit.

The ERP does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or

- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.17 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4]
[326 IAC 2-8-5]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
 - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
 - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request

has not been denied.

- (3) An automatic measurement was taken when the process was not operating.
- (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.19 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.20 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.21 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Cutting, Grinding & Blasting Operations

- (a) One (1) bar saw, known as 1114 M, installed in 1994, equipped with a baghouse, known as Baghouse #1 (1951 M), installed in 2002, exhausting through Stack S1, capacity: 1,300 pounds of metal bars per hour or 20 bars per hour and 73.5 cuts per hour.
- (b) One (1) Wheelabrator blaster, known as 1023 A, equipped with a baghouse, known as Baghouse #2 (1950 A), exhausting through Stack S2, installed in 1989, capacity: 400 pounds of steel shot per hour and 1,300 pounds of metals bars per hour or 20 bars per hour.
- (c) One (1) bar grinding operation, known as 1020 M, exhausting through Stack S4, installed in 1989, capacity: 1,300 pounds of metals bars per hour or 20 bars per hour.
- (d) One (1) bar blaster, known as Clemco Blaster #1 (1041 M), installed in 1989, equipped with a baghouse, known as Baghouse #3 (2003 M), installed in 2002, exhausting inside the building, capacity: 50 pounds of GH-25/40 grit per hour and 1,300 pounds of metals bars per hour or 20 bars per hour.
- (e) One (1) pedestal grinder, known as 1953 M, equipped with a cyclone dust collector, known as 2001 M, installed in 1989, capacity: 1,300 pounds of metals bars per hour or 20 bars per hour.
- (f) One (1) rail cutting operation, capacity: 18,800 pounds of rails per hour or 10 rails per hour and 15 cuts per hours, consisting of:
 - (1) One (1) Del saw, known as 1121 M, installed 1998, equipped with a baghouse, known as Baghouse #2 (1950 A), installed in 2002, exhausting through Stack S2.
 - (2) One (1) miter wet cut saw, known as 1120 M, installed in 1995, equipped with a baghouse, known as Baghouse #4 (2004 M), installed in 2002, exhausting inside the building.
 - (3) One (1) straight wet cut rail saw, known as 1026 M, installed in 1989, equipped with a baghouse, known as Baghouse #5 (2005 M) installed in 2002, exhausting inside the building.
- (g) One (1) rail grinding operation, known as 2002 M, installed in 1989, capacity: 18,800 pounds of rails per hour or 10 rails per hour.
- (h) One (1) rail blaster, known as Clemco Blaster #2 (1029 M), installed in 1989, equipped with a baghouse, known as Baghouse #3 (2003 M), installed in 2002, exhausting inside the building, capacity: 100 pounds of GH-25/40 grit per hour and 18,800 pounds of rails per hour or 10 rails per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 PM Limitation [326 IAC 2-2] [40 CFR 52.21]

- (a) The PM emission rates from the facilities listed in the following table shall be less than the indicated rates.

Facility	PM Emission Rate (pounds per hour)
Bar Saw	3.07
Wheelabrator Blaster	1.60
Bar Grinder	0.097
Bar Blaster	0.500
Pedestal Grinder	1.80
Del Saw	18.4
Miter Wet Cut Saw	0.893
Straight Wet Cut Saw	0.852
Rail Grinder	0.244
Rail Blaster	1.00

- (b) Compliance with the above limits renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.1.2 PM₁₀ Limitation [326 IAC 2-8-4] [326 IAC 2-2] [40 CFR 52.21]

- (a) The PM₁₀ emission rates from the facilities listed in the following table shall be less than the indicated rates.

Facility	PM ₁₀ Emission Rate (pounds per hour)
Bar Saw	9.91
Wheelabrator Blaster	1.38
Bar Grinder	0.097
Bar Blaster	0.349
Pedestal Grinder	1.80
Del Saw	5.05
Miter Wet Cut Saw	0.893
Straight Wet Cut Saw	0.852
Rail Grinder	0.244
Rail Blaster	0.701

- (b) Compliance with the above limits renders the requirements of 326 IAC 2-8-4, 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.1.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations, for Manufacturing Processes), the allowable particulate emission rate from the cutting, grinding and blasting operations facilities shall not exceed the pounds per hour limitations shown in the following table when operating at the

specified process weight rates.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

Facility	Process Weight (tons per hour)	Allowable PM Emission Rate (pounds per hour)
Bar Saw	0.650	3.07
Wheelabrator Blaster	0.650	3.07
Bar Grinder	0.650	3.07
Bar Blaster	0.650	3.07
Pedestal Grinder	0.650	3.07
Del Saw	9.40	18.4
Miter Wet Cut Saw	9.40	18.4
Straight Wet Cut Saw	9.40	18.4
Rail Grinder	9.40	18.4
Rail Blaster	9.40	18.4

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the bar saw, Wheelabrator blaster, Del saw, bar and rail blasters, the miter wet and straight wet cut saws and their control devices.

Compliance Determination Requirements

D.1.5 Particulate Control

In order to comply with Conditions D.1.1, D.1.2 and D.1.3, the baghouses #1, #2, #3 and #5 for particulate control shall be in operation and control emissions from the Wheelabrator blaster, Del saw, bar and rail blasters, miter wet cut saw, and the straight wet cut saw at all times that these facilities are in operation.

In addition, the wet process shall be in operation at all times that the straight and miter cut saws are in operation, in order to comply with the specified limits.

D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within 180 days after issuance of this permit, in order to demonstrate compliance with Conditions D.1.1, D.1.2 and D.1.3, the Permittee shall perform PM and PM₁₀ testing of the bar saw exhausting through baghouse #1 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section

C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.7 Visible Emissions Notations

- (a) Visible emissions notations of the bar saw (stack exhaust S1), the Wheelabrator blaster and Del saw (stack exhaust S2), and the bar grinding (stack exhaust S4) shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.8 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses # 1 through # 5 used in conjunction with the railroad equipment manufacturing processes, at least once per shift when the railroad equipment manufacturing processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.9 Baghouse Inspections

An inspection shall be performed within the last month of each calendar quarter of all bags controlling the railroad equipment manufacturing processes. All defective bags shall be replaced.

D.1.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight

(8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.11 Record Keeping Requirements

- (a) To document compliance with Condition D.1.7, the Permittee shall maintain records of visible emission notations of stack exhausts S1, S2 and S4 once per shift.
- (b) To document compliance with Condition D.1.8, the Permittee shall maintain per shift records of the total static pressure drop during normal operation.
- (c) To document compliance with Condition D.1.9, the Permittee shall maintain records of the results of the inspections required under Condition D.1.9.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Cleaning, Gluing & Assembly Operations

- (i) One (1) bar cleaning operation, installed in 1989, capacity: 1,300 pounds of metals bars per hour or 20 bars per hour.
- (j) One (1) bar gluing operation, installed in 1989, capacity: 1,300 pounds of metals bars per hour or 20 bars per hour.
- (k) One (1) rail cleaning operation, installed in 1989, capacity: 18,800 pounds of rails per hour or 10 rails per hour.
- (l) One (1) rail assembly operation, installed in 1989, capacity: 20,362 pounds of rails, bars and bolts per hour.
- (m) One (1) rail finishing operation, known as 1091 M, equipped with airless spray applicators or brush applicators, installed in 1989, capacity: 20,362 pounds of rails, bars and bolts per hour and 10 rail joints per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Any change or modification which would increase the potential to emit VOC to twenty-five (25) tons per year or more from the bar gluing, rail assembly and rail finishing operations, shall obtain prior approval from IDEM, OAQ.

D.2.2 PM₁₀ Limitation [326 IAC 2-8-4]

The PM₁₀ overspray emissions from the rail finishing operation shall not exceed 0.153 pounds per hour which represents the unrestricted potential to emit for the rail finishing operation. Therefore, the requirements of 326 IAC 2-7 do not apply and no record keeping or reporting is required.

D.2.3 Surface Coating Materials [326 IAC 6-3-2]

Any change or modification which would increase the amount of surface coating materials delivered to the applicators in the rail finishing operations to five (5) gallons per day or more, shall obtain prior approval from IDEM, OAQ and would be subject to the requirements of 326 IAC 6-3-2.

Compliance Determination Requirements

D.2.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content and usage limitations contained in Condition D.2.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no specific Compliance Monitoring Requirements applicable to these emission units.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.5 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.2.1.
 - (1) The VOC content of each coating material and solvent used.
 - (2) The amount of coating material and solvent less water used on daily basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
 - (3) The total VOC usage for each month.
- (b) To document compliance with Condition D.2.3, the Permittee shall maintain a log of the amount of surface coating materials delivered to the applicators in the rail finishing operations each day.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Natural Gas Combustion

- (n) One (1) natural gas-fired heater - bar oven, known as 1050 M, consisting of eight (8) heaters, exhausting through Stack S3, installed in 1989, rated at 0.06 million British thermal units per hour each (deemed an insignificant activity).
- (o) Two (2) natural gas-fired power-vented unit heaters, known as Heaters #1 and #2, installed prior to 1989, rated at 0.5 million British thermal units per hour each (deemed an insignificant activity).
- (p) Eight (8) natural gas-fired power-vented unit heaters, known as Heaters #3 through #10, installed in 2001, rated at 0.4 million British thermal units per hour each (deemed an insignificant activity).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

There are no specific requirements applicable to these natural gas-fired emission units.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Midwest Rail, Inc.
Source Address: 1539 Estella Avenue, Fort Wayne, Indiana 46803
Mailing Address: 1539 Estella Avenue, Fort Wayne, Indiana 46803
FESOP No.: F 003-11492-00307

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Midwest Rail, Inc.
Source Address: 1539 Estella Avenue, Fort Wayne, Indiana 46803
Mailing Address: 1539 Estella Avenue, Fort Wayne, Indiana 46803
FESOP No.: F 003-11492-00307

This form consists of 2 pages

Page 1 of 2

9 This is an emergency as defined in 326 IAC 2-7-1(12)
CThe Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
CThe Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Midwest Rail, Inc.
Source Address: 1539 Estella Avenue, Fort Wayne, Indiana 46803
Mailing Address: 1539 Estella Avenue, Fort Wayne, Indiana 46803
FESOP No.: F 003-11492-00307

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for Federally Enforceable State Operating Permit (FESOP)

Source Name: Midwest Rail, Inc.
Source Location: 1539 Estella Avenue, Fort Wayne, Indiana 46803
County: Allen
SIC Code: 3743
Operation Permit No.: F 003-11492-00307
Permit Reviewer: Mark L. Kramer

On October 30, 2002, the Office of Air Quality (OAQ) had a notice published in the Fort Wayne Journal Gazette, Fort Wayne, Indiana, stating that Midwest Rail, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) to operate a railroad equipment manufacturing source. The notice also stated that OAQ proposed to issue a FESOP for this operation and provided information on how the public could review the proposed FESOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP should be issued as proposed.

On November 26, 2002, Paulette M. Bremer of Avant Group, on behalf of Midwest Rail, Inc., submitted comments on the proposed FESOP. The comments are as follows: The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1:

On Page 13 of 39, Condition B.14 (b) (5) reads "For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:" No fax number is listed.

Response 1:

Condition B.14 (b)(4) contains the facsimile number, but for clarification, IDEM, OAQ has added the facsimile number in Condition B.14 (b)(5) as follows:

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

or

Facsimile No.: 317-233-5967

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

Comment 2:

On Page 29 of 39, Condition D.1.6 reads "Testing Requirements (326 IAC 2-8-5(a)(1), (4) (326 IAC 2-1.1-11) With 180 days after issuance of this permit..." Is this within 180 days or after 180 days after issuance of this permit?

Response 2:

Condition D.1.6 has been clarified to require testing within 180 days after permit issuance as follows:

D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within 180 days after issuance of this permit, in order to demonstrate compliance with Conditions D.1.1, D.1.2 and D.1.3, the Permittee shall perform PM and PM₁₀ testing of the bar saw exhausting through baghouse #1 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C- Performance Testing.

On November 26, 2002, several Concerned Environmental Conscious Citizens submitted comments on the proposed FESOP. Their comments and names follow:

Comment 1:

We would like to voice our comments on the permit that Midwest Rail has applied for through IDEM. The company that we work for is located across the street from Midwest Rail. To that point, our parking lot is located within approximately 100 feet of the area that Midwest Rail routinely performs their cutting and sawing operations.

During the spring of 2001 many of us started noticing problems with the paint on our cars. In a nutshell, this paint surface feels pitted and a rust color material is embedded on the paint surface. Through our research we have concluded the rust color material that has settled onto our vehicles is known within the industry as "rail dust."

Our investigation has also led us to conclude that the rail dust originates and is caused by the operations performed by Midwest Rail. The most obvious evidence is the fact that the automobiles that park closest to Midwest Rail have the greatest amount of damage. Furthermore, the damage is more concentrated on the side of the automobiles that face Midwest Rail, which is consistent with west-northwest prevailing winds.

In summary, we believe that the operations performed at Midwest Rail are environmentally unsafe and are causing undue damage to our personal property. We very much look forward to additional dialog and follow-up.

Signed by the following Indiana residents:

Lee Ann James, Fort Wayne
Sharon Long, Fort Wayne
Karla Wygant, Roanoke
Nancy Hanin, Fort Wayne
Sandy Vorrel Born
Kris Kennedy, Decatur
Dianna Gilley, Fort Wayne

Tom Scofield, Fort Wayne
Tim Miller, Fort Wayne
Andrew J. Garringer, Fort Wayne
Stephanie K. Robinson, Fort Wayne
Karen Johnson, Fort Wayne
Linda Bower, Fort Wayne
Ken Suz, Fort Wayne

Response 1:

The OAQ appreciates the above residents' interest regarding Midwest Rail, Inc. in Fort Wayne. This permit contains conditions that will ensure that Midwest Rail, Inc. remains in compliance with all applicable State and Federal air regulations and that emissions from the plant will not cause or contribute to a violation of any National Ambient Air Quality Standards (NAAQS).

The federal Clean Air Act requires the U.S. EPA to establish NAAQS for various pollutants at a level that protects public health and welfare with an adequate margin of safety. These standards have been established for particulate matter, sulfur dioxide, ozone, carbon monoxide and lead. The IDEM and the U. S. EPA have determined that Allen County's air quality meets these standards for all of these pollutants.

In addition, Condition C.5 of the proposed permit specifies that the Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

If you suspect that Midwest Rail, Inc. is out of compliance with any of the applicable regulations, such as 326 IAC 6-4 cited above, or air pollutants are believed to be causing damage to personal property, please note the date and time and contact the IDEM inspector, Jennifer Dorn assigned to this source. Ms. Dorn can be contacted toll free at (800) 451-6027 from 7 a.m. to 3:30 p.m. or at (317) 233-5674.

IDEM, OAQ will conduct surveillance and inspections of the source to verify that Midwest Rail, Inc. is in compliance with all conditions in their permit. All of IDEM's inspections are unannounced, can take place during any month of the year, on any day of the week and during any time of the day, but most are conducted during normal daylight hours and occasionally at night.

In the proposed FESOP, Condition B.21 (Inspection and Entry) allows IDEM, OAQ and U.S. EPA upon presentation of identification access to the source's premises to inspect, at reasonable times any facility, equipment, including monitoring and air pollution control equipment, practices, or operations regulated or required under the FESOP.

Currently, the cutting and sawing operations consist of:

- (a) One (1) bar saw, known as 1114 M, installed in 1994, equipped with a baghouse, known as Baghouse #1 (1951 M), installed in 2002, exhausting through Stack S1, capacity: 1,300 pounds of metal bars per hour or 20 bars per hour and 73.5 cuts per hour.
- (b) One (1) rail cutting operation, capacity: 18,800 pounds of rails per hour or 10 rails per hour and 15 cuts per hours, consisting of:
 - (1) One (1) Del saw, known as 1121 M, installed 1998, equipped with a baghouse, known as Baghouse #2 (1950 A), installed in 2002, exhausting through Stack S2.
 - (2) One (1) miter wet cut saw, known as 1120 M, installed in 1995, equipped with a baghouse, known as Baghouse #4 (2004 M), installed in 2002, exhausting inside the building.
 - (3) One (1) straight wet cut rail saw, known as 1026 M, installed in 1989, equipped with a baghouse, known as Baghouse #5 (2005 M) installed in 2002, exhausting inside the building.

All of the PM and PM₁₀ emissions from the cutting and sawing operations are controlled by baghouse dust collectors. In order to ensure that all of the baghouses are operating properly, the following compliance monitoring conditions have been included in the proposed permit. These baghouses minimize particulate emissions.

D.1.8 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses # 1 through # 5 used in conjunction with the railroad equipment manufacturing processes, at least once per shift when the railroad equipment manufacturing processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.9 Baghouse Inspections

An inspection shall be performed within the last month of each calendar quarter of all bags controlling the railroad equipment manufacturing processes. All defective bags shall be replaced.

D.1.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

IDEM, OAQ encourages the public to contact the inspector upon continuation or reoccurrence of the noted problem so that IDEM can investigate whether Midwest Rail, Inc. is in violation of any applicable State and/or Federal air pollution regulations.

Upon further review, the OAQ has decided to make the following changes to the FESOP: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

Change 1:

The general provisions; term of permit rule cite was added to Condition B.3 (Permit Term). In order to avoid confusion for renewals as to what is the "original" date, IDEM, OAQ is referring to, the following change has been made:

B.3 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the ~~original~~ **issuance date of this permit**, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

Change 2:

Since Condition B.8(c) (Duty to Supplement and Provide Information) already addresses confidentiality, the last sentence of (b) was revised to remove the statement about confidential information, and (c) was updated for clarity. Also, the condition was revised to change a rule reference. Subpart (c) references 326 IAC 17. This rule was repealed by the Air Pollution Control Board on January 26, 2000. The new rule reference has been added as follows:

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit. ~~or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-8-4(5)(E)]~~
- (c) **For information furnished by the Permittee to IDEM, OAQ, t**The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.4. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

Change 3:

Condition B.13 (Preventive Maintenance Plan) has been revised because it is not necessary to state twice that the PMP does not need to be certified. The statement is more appropriately contained in (c), it has been removed from (a) as follows.

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The ~~PMP and the~~ PMP extension notification ~~does~~ not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Change 4:

The requirement to include emergencies in the Quarterly Deviation and Compliance Monitoring Report has been moved from Condition B.15 to Condition B.14. In Condition B.14 (Emergency Provisions), the statement at the end of (b)(4) has been removed, because this is added as (h) as follows:

B.14 Emergency Provisions [326 IAC 2-8-12]

- (b) (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

~~Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]~~

- (h) **The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.**

Change 5:

Condition B.15(c) (Deviations from Permit Requirements and Conditions), has been deleted and was incorporated as Condition B.14(h) (Emergency Provisions).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (c) ~~Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.~~

Change 6:

In order to be consistent with 326 IAC 2-8-15 (a)(5), the rule cite has been revised in Condition B.19(a)(5) B.19 (Operational Flexibility). Condition B.19(b) has been removed, because this is a Part 70 requirement, but not a FESOP requirement.

B.19 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]

- (a) (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- ~~(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:~~

~~(1) A brief description of the change within the source;~~

~~(2) The date on which the change will occur;~~

~~(3) Any change in emissions; and~~

~~(4) Any permit term or condition that is no longer applicable as a result of the change.~~

~~The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.~~

Change 7:

Condition B.22(c) (Transfer of Ownership or Operational Control) has had the rule cite corrected as follows.

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-44 10(b)(3)]

Change 8:

326 IAC 2-1.1-7 specifies that nonpayment may result in revocation of the permit. This is not specified in 326 IAC 2-8; therefore, this rule cite is being added to Condition B.23. Also, the section and phone number of who the Permittee can contact has been corrected in Condition B.23(c) as follows.

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]

- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 **4320** (ask for OAQ, Technical Support and Modeling Section **I/M & Billing Section**), to determine the appropriate permit fee.

Change 9:

Condition C.1 (Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour) has been added to the FESOP as follows. All remaining Section C conditions have been renumbered.

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

- (a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than one hundred (100) pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than one hundred (100) pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

Change 10:

Condition C.8(e) (now C.9(e)) (Asbestos Abatement Projects) has been revised to correct the rule cite as follows:

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-~~41~~, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

Change 11:

The following was added to Condition C.10 (now C.11) (Compliance Requirements) to state what IDEM, OAQ does when stack testing, monitoring, or reporting is required to assure compliance with applicable requirements as follows:

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements **by issuing an order under 326 IAC 2-1.1-11**. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Change 12:

Condition C.13 (now C.14) has had a paragraph (c) added to address pH better and removed pH from (b) as follows:

C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

- (b) Whenever a condition in this permit requires the measurement of a temperature, ~~or flow rate, or pH level~~, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
- (c) **The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.**
- ~~(e)~~(d) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Change 13:

In Condition C.16(e) now C.17 (Compliance Response Plan - Preparation, Implementation, Records, and Reports), the rule cite was corrected to reflect the FESOP rules instead of the Title V rules.

C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4][326 IAC 2-8-5]

- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of ~~326 IAC 2-7-16~~ **326 IAC 2-8-12** (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

Change 14:

Previously, the terms “particulate” and “particulate matter” were both used in the 326 IAC 6-3, but revisions were made to the rule which became effective on June 12, 2002 that included using the term “particulate” consistently in 326 IAC 6-3. Therefore, Conditions D.1.3 and D.1.5 have been changed as follows:

D.1.3 ~~Particulate Matter (PM)~~ [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate ~~Emission Limitations~~, **for Manufacturing Processes**, ~~work practices and control technologies~~), the allowable **particulate PM** emission rate from the cutting, grinding and blasting operations facilities shall not exceed the pounds per hour limitations shown in the following table when operating at the specified process weight rates.

D.1.5 ~~Particulate Matter (PM)~~ **Particulate Control Matter (PM)**

In order to comply with Conditions D.1.1, D.1.2 and D.1.3, the baghouses #1, #2, #3 and #5 for **particulate PM** control shall be in operation and control emissions from the Wheelabrator blaster, Del saw, bar and rail blasters, miter wet cut saw, and the straight wet cut saw at all times that these facilities are in operation.

In addition, the wet process shall be in operation at all times that the straight and miter cut saws are in operation, in order to comply with the specified limits.

Change 15:

Condition D.2.4 has been revised as follows:

D.2.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content and usage limitations contained in Condition D.2.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) ~~using formulation data supplied by the coating manufacturer.~~ **by preparing or obtaining from the manufacturer the copies of the “as supplied” and “as applied” VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.**

Change 16:

The VOC record keeping requirements language has been revised in Condition D.2.5.

D.2.5 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.2.1.
 - (1) ~~The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;~~
 - (2) **The amount of coating material and solvent less water used on daily basis.**
 - (A) **Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.**
 - (B) **Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.**
 - ~~(2) A log of the dates of use;~~
 - (3) The total VOC usage for each month.

Change 17:

The spelling of calendar has been corrected in Condition D.1.9 as follows:

D.1.9 Baghouse Inspections

An inspection shall be performed each ~~calendar~~ **calendar** quarter of all bags controlling the railroad equipment manufacturing processes. All defective bags shall be replaced.

Change 18:

Condition D.1.10 (Broken or Failed Bag Detection) was revised as follows to describe when a failed unit will be shut down:

D.1.10 Broken or Failed Bag Detection

- (b) For single compartment baghouses, **if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then** failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Change 19:

In the Emergency Occurrence Report form, the first box on was revised to include the word "working" in order to be consistent with 326 IAC 2-8-12(b)(5) and the Emergency Provision as follows:

This form consists of 2 pages

Page 1 of 2

- 9 This is an emergency as defined in 326 IAC 2-7-1(12)
- Ⓒ The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 - Ⓒ The Permittee must submit notice in writing or by facsimile within two (2) **working** days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

**Indiana Department of Environmental Management
Office of Air Quality**

**Technical Support Document (TSD)
for a Federally Enforceable State Operating Permit (FESOP)**

Source Background and Description

Source Name:	Midwest Rail, Inc.
Source Location:	1539 Estella Avenue, Fort Wayne, Indiana 46803
County:	Allen
SIC Code:	3743
Operation Permit No.:	F 003-11492-00307
Permit Reviewer:	Mark L. Kramer

The Office of Air Quality (OAQ) has reviewed an application from Midwest Rail, Inc. relating to the operation of a railroad equipment manufacturing source.

Permitted Emission Units and Pollution Control Equipment

There are no permitted facilities operating at this source during this review process.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities/units:

- (a) One (1) bar saw, known as 1114 M, installed in 1994, equipped with a baghouse, known as Baghouse #1 (1951 M), installed in 2002, exhausting through Stack S1, capacity: 1,300 pounds of metal bars per hour or 20 bars per hour and 73.5 cuts per hour.
- (b) One (1) Wheelabrator blaster, known as 1023 A, equipped with a baghouse, known as Baghouse #2 (1950 A), exhausting through Stack S2, installed in 1989, capacity: 400 pounds of steel shot per hour and 1,300 pounds of metals bars per hour or 20 bars per hour.
- (c) One (1) bar grinding operation, known as 1020 M, exhausting through Stack S4, installed in 1989, capacity: 1,300 pounds of metals bars per hour or 20 bars per hour.
- (d) One (1) bar blaster, known as Clemco Blaster #1 (1041 M), installed in 1989, equipped with a baghouse, known as Baghouse #3 (2003 M), installed in 2002, exhausting inside the building, capacity: 50 pounds of GH-25/40 grit per hour and 1,300 pounds of metals bars per hour or 20 bars per hour.
- (e) One (1) pedestal grinder, known as 1953 M, equipped with a cyclone dust collector, known as 2001 M, installed in 1989, capacity: 1,300 pounds of metals bars per hour or 20 bars per hour.
- (f) One (1) rail cutting operation, capacity: 18,800 pounds of rails per hour or 10 rails per hour and 15 cuts per hours, consisting of:
 - (1) One (1) Del saw, known as 1121 M, installed 1998, equipped with a baghouse, known as Baghouse #2 (1950 A), installed in 2002, exhausting through Stack S2.

- (2) One (1) miter wet cut saw, known as 1120 M, installed in 1995, equipped with a baghouse, known as Baghouse #4 (2004 M), installed in 2002, exhausting inside the building.
- (3) One (1) straight wet cut rail saw, known as 1026 M, installed in 1989, equipped with a baghouse, known as Baghouse #5 (2005 M) installed in 2002, exhausting inside the building.
- (g) One (1) rail grinding operation, known as 2002 M, installed in 1989, capacity: 18,800 pounds of rails per hour or 10 rails per hour.
- (h) One (1) rail blaster, known as Clemco Blaster #2 (1029 M), installed in 1989, equipped with a baghouse, known as Baghouse #3 (2003 M), installed in 2002, exhausting inside the building, capacity: 100 pounds of GH-25/40 grit per hour and 18,800 pounds of rails per hour or 10 rails per hour.
- (i) One (1) bar cleaning operation, installed in 1989, capacity: 1,300 pounds of metals bars per hour or 20 bars per hour.
- (j) One (1) bar gluing operation, installed in 1989, capacity: 1,300 pounds of metals bars per hour or 20 bars per hour.
- (k) One (1) rail cleaning operation, installed in 1989, capacity: 18,800 pounds of rails per hour or 10 rails per hour.
- (l) One (1) rail assembly operation, installed in 1989, capacity: 20,362 pounds of rails, bars and bolts per hour.
- (m) One (1) rail finishing operation, known as 1091 M, equipped with airless spray applicators or brush applicators, installed in 1989, capacity: 20,362 pounds of rails, bars and bolts per hour and 10 rail joints per hour.
- (n) One (1) natural gas-fired heater - bar oven, known as 1050 M, consisting of eight (8) heaters, exhausting through Stack S3, installed in 1989, rated at 0.06 million British thermal units per hour each (deemed an insignificant activity).
- (o) Two (2) natural gas-fired power-vented unit heaters, known as Heaters #1 and #2, installed prior to 1989, rated at 0.5 million British thermal units per hour each (deemed an insignificant activity).
- (p) Eight (8) natural gas-fired power-vented unit heaters, known as Heaters #3 through #10, installed in 2001, rated at 0.4 million British thermal units per hour each (deemed an insignificant activity).

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour with a total rating of 4.68 million British thermal units per hour consisting of:

- (1) One (1) natural gas-fired heater - bar oven, known as 1050 M, consisting of eight (8) heaters, exhausting through Stack S3, installed in 1989, rated at 0.06 million British thermal units per hour each.
- (2) Two (2) natural gas-fired power-vented unit heaters, known as Heaters #1 and #2, installed prior to 1989, rated at 0.5 million British thermal units per hour each.
- (3) Eight (8) natural gas-fired power-vented unit heaters, known as Heaters #3 through #10, installed in 2001, rated at 0.4 million British thermal units per hour each.
- (b) Combustion source flame safety purging on startup.
- (c) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons. (One (1) approximately 250 gallon gasoline tank).
- (d) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month. (One (1) approximately 250 gallon diesel tank).
- (e) The following VOC and HAP storage containers: Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids (drums).
- (f) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.
- (g) Machining where an aqueous cutting coolant continuously floods the machining interface (drilling).
- (h) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment (maintenance).
- (i) Water based adhesives that are less than or equal to 5 percent by volume of VOCs excluding HAPs.
- (j) Replacement or repair of bags in baghouses and filters in other air filtration equipment.
- (k) Paved and unpaved roads and parking lots with public access.
- (l) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

Existing Approvals

There are no existing approvals issued to this source.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the wet process be considered as an integral part of the straight and miter cut saw operations:

The saws are cooled by water and could not operate without the proper flow of water. The straight and miter cut saws can not operate without the water based coolant because the coolant is required to keep the blade and the rail cool. The coolant is essential to maintain the temperature of the rail during cutting to preserve its strength. If the rail gets too hot, the molecular structure of the rail is altered which results in a weakened joint. This imperfection is known as Martinsite. If the joint was weakened, it would not meet the quality hardness criteria of the railroad industry and customers.

IDEM, OAQ has evaluated the justifications and agreed that the wet process will be considered as an integral part of both the straight and miter cut saws. Therefore, the permitting level will be determined using the potential to emit after the wet process, but prior to the baghouse control. Operating conditions in the proposed permit will specify that this wet process shall operate at all times when the straight and miter saws are in operation.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S1	Bar Saw Baghouse #1 (1951 M)	12.0	1.90	6,212	ambient
S2	Wheelabrator/Del Saw Baghouse #2 (1950 A)	22.0	2.00	10,362	ambient
S3	Bar-Oven Heater (1050 M)	23.8	0.500	520	68
S4	Bar Grinding Operation (1020 M)	24.0	1.00	366	68

Enforcement Issue

- (a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment*.
- (b) IDEM is aware that the source was not issued a FESOP by December 14, 1996 nor did they submit a Part 70 application by that date.
- (c) IDEM is reviewing these matters and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction and operation permit rules.

Recommendation

The staff recommends to the Commissioner that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete MSOP application for the purposes of this review was received on October 25, 1999 with additional information received on March 18, 2002. Subsequently on June 24, 2002, the source requested a FESOP. Additional information was received on October 4, 2002.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See pages 1 through 9 of 9 of Appendix A of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	540
PM ₁₀	530
SO ₂	0.012
VOC	25.7
CO	1.72
NO _x	2.05

Note: For the purpose of determining Title V applicability for particulates, PM₁₀, not PM, is the regulated pollutant in consideration.

HAPs	Potential To Emit (tons/year)
Benzene	0.00004
Dichlorobenzene	0.00002
Formaldehyde	0.002
Hexane	0.037
Toluene	0.00007
Lead Compounds	0.00001
Cadmium Compounds	0.00002
Chromium Compounds	0.00003
Manganese Compounds	0.108
Nickel Compounds	0.00004
Other HAPs from Insignificant Activities	1.00
TOTAL	1.15

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM_{10} is equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

- (b) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

- (c) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its potential to emit to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.

Actual Emissions

No previous emission data has been received from the source.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Federally Enforceable State Operating Permit.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM_{10}	SO ₂	VOC	CO	NO _x	HAPs
Bar Saw	Less Than 13.4	Less Than 43.4	-	-	-	-	0.039
Wheelabrator Blaster	7.01	6.03	-	-	-	-	0.001
Bar Grinder	0.426	0.426	-	-	-	-	0.005
Bar Blaster	2.19	1.53	-	-	-	-	0.0003
Pedestal Grinder	7.90	7.90	-	-	-	-	0.028
Del Saw	Less Than 80.6	Less Than 22.1	-	-	-	-	0.020
Miter Wet Cut Saw	3.91	3.91	-	-	-	-	0.0005
Straight Wet Cut Saw	3.73	3.73	-	-	-	-	0.0004
Rail Grinder	1.07	1.07	-	-	-	-	0.013
Rail Blaster	4.38	3.07	-	-	-	-	0.001
Surface Coating	0.668	0.668	-	23.6	-	-	0.000
Natural Gas Combustion	0.039	0.156	0.012	0.113	1.72	2.05	0.039

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Unpaved Roads	11.8	3.99	-	-	-	-	0
Other Insignificant Activities	2.0	2.0	-	2.0	-	-	1.0
Total Emissions	Less Than 139	Less Than 100	0.012	25.1	1.72	2.05	1.15

The PM and PM₁₀ emission rates have been set equal to the potential to emit before controls for the Wheelabrator blaster, bar grinder, the bar blaster, pedestal grinder, miter and straight wet cut saws, rail grinder and rail blaster.

The PM emission rates for the Bar and Del saws were set to less than those allowed by the hourly PM emission rates pursuant to 326 IAC 6-3-2 of 3.07 and 18.4 pounds per hour, respectively. The PM₁₀ emissions for the Bar and Del saws were adjusted to the balance of the one hundred (100) ton per year limit pursuant to 326 IAC 2-8-4.

County Attainment Status

The source is located in Allen County.

Pollutant	Status
PM ₁₀	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as attainment or unclassifiable for ozone.
- (b) Allen County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This existing source constructed after the PSD applicability date of August 7, 1977 is a minor PSD source since the potential to emit all criteria pollutants after controls is less than 250 tons per year.

326 IAC 2-6 (Emission Reporting)

This source is located in Allen County and the potential to emit PM₁₀, VOC and NO_x are less than one hundred (100) tons per year, therefore, 326 IAC 2-6 does not apply.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM₁₀ shall be limited to less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-8-4(9) (Preventive Maintenance Plan)

- (a) A Preventive Maintenance Plan is required for the Wheelabrator Blaster and Del Saw (baghouse #2), the bar and rail blasters (baghouse #3), the miter wet cut saw (baghouse #4), and the straight wet cut saw (baghouse #5) because:
 - (1) They have control devices, and
 - (2) The allowable PM emission rates exceed ten (10) pounds per hour.
- (b) A Preventive Maintenance Plan is required for bar saw (baghouse #1) because the bar saw would have been subject to an applicable requirement (326 IAC 2-2) if there was not a condition limiting the potential to emit.
- (c) A Preventive Maintenance Plan is not required for pedestal grinder (cyclone) even though it has a control device because:
 - (1) The allowable PM emission rate do not exceed ten (10) pounds per hour,
 - (2) There is no NSPS or NESHAP that applies.

326 IAC 6-3 (Particulate Emission Limitations For Manufacturing Processes)

Pursuant to 326 IAC 6-3-2(e)(3), the allowable PM emission rate from the following facilities shall not exceed the values listed in the following table when operating at the specified process rate weights.

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Facility	Process Weight (tons per hour)	Allowable PM Emission Rate (pounds per hour)	Potential PM Emission Rate After Controls (pounds per hour)
Bar Saw	0.650	3.07	0.750
Wheelabrator Blaster	0.650	3.07	0.397
Bar Grinder	0.650	3.07	0.097
Bar Blaster	0.650	3.07	0.015
Pedestal Grinder	0.650	3.07	0.541
Del Saw	9.40	18.4	0.397
Miter Wet Cut Saw	9.40	18.4	0.009
Straight Wet Cut Saw	9.40	18.4	0.009
Rail Grinder	9.40	18.4	0.243
Rail Blaster	9.40	18.4	0.015

Note the potential to emit after controls for the Wheelabrator Blaster and Del Saw are listed above as the combination of both (0.397 pounds per hour total) since they are equipped with the same baghouse, known as baghouse #2. In addition, the bar and rail blasters also share the same baghouse, known as baghouse #3, and the potential to emit listed is the combination of the PTEs (0.015 pounds per hour).

As shown above all of the facilities comply with their allowable PM emission rate pursuant to 326 IAC 6-3-2.

The baghouse #1 associated with the bar saw, baghouse #2 associated with the Wheelabrator blaster and Del saw, baghouse #3 associated with the bar and rail blasters, baghouse #4 associated with the miter wet cut saw, and baghouse #5 associated with the straight wet cut saw shall be in operation at all times that these processes are in operation, in order to comply with the specified limits or because the allowable PM emission pursuant to 326 IAC 6-3-2 are greater than ten (10) pounds per hour.

In addition, the wet process shall be in operation at all times that the straight and miter cut saws are in operation, in order to comply with the specified limits.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-1(b)(15), the rail finishing operation is not subject to the requirements of 326 IAC 6-3 because the potential surface coating use less than five (5) gallons per day. Only the airless spray applicators produce particulate matter. All other application methods have no particulate emissions.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

The one (1) rail finishing operation, known as 1091M, equipped with airless spray applicators or brush applicators, installed in 1989, is not subject to the requirements of 326 IAC 8-2-9 because the potential to emit VOC from coating metal is less than twenty-five (25) tons per year. Any change or modification to the rail finishing operation that increases the potential to emit VOC from coating metal to twenty-five (25) tons per year or more shall require prior approval of IDEM, OAQ.

326 IAC 8-1-6 (New facilities: general reduction requirements)

This rule may apply to new facilities as of January 1, 1980. Since the potential VOC emissions from the one (1) rail finishing operation coating fiberglass bars and rails, constructed in 1989, and the gluing/joint assembly are less than a total twenty-five (25) tons per year, therefore the requirements of 326 IAC 8-1-6 do not apply to this source. Any change or modification which would increase the potential to emit VOC to twenty-five (25) tons per year or more from coating fiberglass and gluing/joint assembly, shall obtain prior approval from IDEM, OAQ.

Stack Tests

PM testing of the bar saw and its exhaust through baghouse #1 is proposed since its potential to emit PM and PM₁₀ is greater than forty (40%) percent of the entire source potential to emit before controls.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

- (a) Visible emissions notations of the bar saw (stack exhaust S1), the Wheelabrator blaster and Del saw (stack exhaust S2), and the bar grinding (stack exhaust S4) shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means

those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

- (b) The Permittee shall record the total static pressure drop across baghouses #1 through #5 used in conjunction with the railroad equipment manufacturing processes, at least once per shift when the railroad equipment manufacturing processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (c) An inspection shall be performed within the last month of each calendar quarter of all bags controlling the railroad equipment manufacturing processes at this source when venting to the atmosphere. All defective bags shall be replaced.
- (d) In the event that bag failure has been observed:
 - (1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion.
 - (2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouses for the rail manufacturing processes must operate properly to ensure compliance with 326 IAC 2-2, 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

Conclusion

The operation of this railroad equipment manufacturing source shall be subject to the conditions of the attached proposed FESOP No.: F 003-11492-00307.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100**

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**Company Name: Midwest Rail, Inc.
Address City IN Zip: 1539 Estella Avenue, Fort Wayne, Indiana 46803
FESOP: F 003-11492
Plt ID: 003-00307
Reviewer: Mark L. Kramer
Date: October 25, 1999**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr		Total Rating mmBtu/hr
4.6800	41.00	Heater - Bar Oven	0.48
		Heaters #1 and #2	1.00
		Heaters #3 - #10	3.20
		Total	4.68

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.039	0.156	0.0123	2.050	0.113	1.722

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions**

Page 2 of 9 TSD App A

**Company Name: Midwest Rail, Inc.
Address City IN Zip: 1539 Estella Avenue, Fort Wayne, Indiana 46803
FESOP: F 003-11492
Plt ID: 003-00307
Reviewer: Mark L. Kramer
Date: October 25, 1999**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	0.00004	0.00002	0.00154	0.03690	0.00007

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	0.00001	0.00002	0.00003	0.00001	0.00004	0.039

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

Page 3 of 9 TSD App A

**Company Name: Midwest Rail, Inc.
Address City IN Zip: 1539 Estella Avenue, Fort Wayne, Indiana 46803
FESOP: F 003-11492
Plt ID: 003-00307
Reviewer: Mark L. Kramer
Date: October 25, 1999**

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/joint)	Maximum (joints/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	Substrate
Gluing/Joint Assembly																	
Allegheny Temprange II Epoxy Cement A	9.76	0.00%	0.0%	0.0%	0.0%	100.00%	0.12500	10.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	S&F B&RA
Allegheny Temprange II Epoxy Cement B	8.09	0.00%	0.0%	0.0%	0.0%	100.00%	0.12500	10.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	S&F B&RA
Rail and Bar Cleaning																	
Leksol Solvent	11.01	100.00%	0.0%	100.0%	0.0%	0.00%	0.04300	10.000	11.01	11.01	4.73	113.62	20.74	0.00	n/a	100%	S&F B&RA
Rail Finishing: Color Coding Metal Rails																	
Atomized Materials Air Dry Enamel White	8.050	51.43%	0.0%	51.4%	0.0%	35.06%	0.01560	10.000	4.14	4.14	0.65	15.50	2.83	0.67	11.81	75%	S&F B&RA
Atomized Materials Air Dry Enamel Sky Blue	8.040	51.49%	0.0%	51.5%	0.0%	35.11%	0.01560	10.000	4.14	4.14	0.65	15.50	2.83	0.67	11.79	75%	S&F B&RA
Atomized Materials Air Dry Enamel Green	7.340	55.99%	0.0%	56.0%	0.0%	35.12%	0.01560	10.000	4.11	4.11	0.64	15.39	2.81	0.55	11.70	75%	S&F B&RA
Atomized Materials Air Dry Enamel Black	7.280	51.37%	0.0%	51.4%	0.0%	40.68%	0.01560	10.000	3.74	3.74	0.58	14.00	2.56	0.60	9.19	75%	S&F B&RA
State Potential Emissions									PM	Control Efficiency	0.00%						
Add worst case color coding to all solvents & adhesives										Uncontrolled		5.38	129.12	23.57	0.668		
										Controlled		5.38	129.12	23.57	0.668		

Note: Surface coating that produces particulate matter (Rail Finishing) uses less than 5 gallons of coating per day (.01560 * 10 * 24 = 3.744 gal/day)

METHODOLOGY

S&F B&R = Steel and fiberglass bars and rails

S&F B&RA = Steel and fiberglass bars and rail assemblies

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

There are no HAPs in any of the above materials

Appendix A: Emission Calculations

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Company Name: Midwest Rail, Inc.
Address City IN Zip: 1539 Estella Avenue, Fort Wayne, Indiana 46803
FESOP: F 003-11492
Pit ID: 003-00307
Reviewer: Mark L. Kramer
Date: October 25, 1999

(TSP)

Unpaved Roads

Daewoo Crawler

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 13.2.2 (Supplement E, 9/98).

Two methods are provided for calculating emissions. The first does not consider natural mitigation due to precipitation.

$$\begin{aligned} & 1 \text{ trip/hr} \times \\ & 0.05 \text{ mile/trip} \times \\ & 2 \text{ (round trip) } \times \\ & 8760 \text{ hr/yr} = 876 \text{ miles per year} \end{aligned}$$

Method 1: $E_f = k^*[(s/12)^{0.8}] * [(W/3)^b] / [(M/0.2)^c]$

$$= 8.39 \text{ lb/mile}$$

where k = 10 (particle size multiplier for PM-10 (k=10 for PM-30 or TSP))
s = 4.8 mean % silt content of unpaved roads
b = 0.5 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.4 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 9.15 tons average vehicle weight
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

$$\frac{8.39 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 3.68 \text{ tons/yr}$$

This method has a lower quality rating than Method 1.

Method 2: $E_f = \{k^*[(s/12)^{0.8}] * [(W/3)^b] / [(Mdry/0.2)^c]\} * [(365-p)/365]$

$$= 5.52 \text{ lb/mile}$$

where k = 10 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)
s = 4.8 mean % silt content of unpaved roads
b = 0.5 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.4 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 9.15 tons average vehicle weight
Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)
p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)

$$\frac{5.52 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 2.42 \text{ tons/yr}$$

(TSP)

Unpaved Roads

Daewoo Forklift

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 13.2.2 (Supplement E, 9/98).

Two methods are provided for calculating emissions. The first does not consider natural mitigation due to precipitation.

$$\begin{aligned} & 1 \text{ trip/hr} \times \\ & 0.05 \text{ mile/trip} \times \\ & 2 \text{ (round trip) } \times \\ & 8760 \text{ hr/yr} = 876 \text{ miles per year} \end{aligned}$$

Method 1: $E_f = k^*[(s/12)^{0.8}] * [(W/3)^b] / [(M/0.2)^c]$

$$= 9.48 \text{ lb/mile}$$

where k = 10 (particle size multiplier for PM-10 (k=10 for PM-30 or TSP))
s = 4.8 mean % silt content of unpaved roads
b = 0.5 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.4 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 11.69 tons average vehicle weight
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

$$\frac{9.48 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 4.15 \text{ tons/yr}$$

This method has a lower quality rating than Method 1.

Method 2: $E_f = \{k^*[(s/12)^{0.8}] * [(W/3)^b] / [(Mdry/0.2)^c]\} * [(365-p)/365]$

$$= 6.24 \text{ lb/mile}$$

where k = 10 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)
s = 4.8 mean % silt content of unpaved roads
b = 0.5 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.4 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 11.69 tons average vehicle weight
Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)
p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)

$$\frac{6.24 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 2.73 \text{ tons/yr}$$

TSP

Unpaved Roads

Daewoo Loader

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 13.2.2 (Supplement E, 9/98).

Two methods are provided for calculating emissions. The first does not consider natural mitigation due to precipitation.

$$\begin{aligned} & 1 \text{ trip/hr} \times \\ & 0.05 \text{ mile/trip} \times \\ & 2 \text{ (round trip) } \times \\ & 8760 \text{ hr/yr} = 876 \text{ miles per year} \end{aligned}$$

Method 1: $E_f = k^*[(s/12)^{0.8}] * [(W/3)^b] / [(M/0.2)^c]$

$$= 7.94 \text{ lb/mile}$$

where k = 10 (particle size multiplier for PM-10 (k=10 for PM-30 or TSP))
s = 4.8 mean % silt content of unpaved roads
b = 0.5 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.4 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 8.20 tons average vehicle weight
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

$$\frac{7.94 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 3.48 \text{ tons/yr}$$

This method has a lower quality rating than Method 1.

Method 2: $E_f = \{k^*[(s/12)^{0.8}] * [(W/3)^b] / [(Mdry/0.2)^c]\} * [(365-p)/365]$

$$= 5.22 \text{ lb/mile}$$

where k = 10 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)
s = 4.8 mean % silt content of unpaved roads
b = 0.5 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.4 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 8.20 tons average vehicle weight
Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)
p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)

$$\frac{5.22 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 2.29 \text{ tons/yr}$$

TSP
Unpaved Roads

Semi-Trucks

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 13.2.2 (Supplement E, 9/98).

Two methods are provided for calculating emissions. The first does not consider natural mitigation due to precipitation.

$$\begin{aligned} & 1 \text{ trip/hr} \times \\ & 0.05 \text{ mile/trip} \times \\ & 2 \text{ (round trip)} \times \\ & 8760 \text{ hr/yr} = \end{aligned} \quad \begin{aligned} & 876 \text{ miles per year} \end{aligned}$$

Method 1: $E_f = k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] \cdot [(M/0.2)^c]$

= 15.19 lb/mile

where k = 10 (particle size multiplier for PM-10 (k=10 for PM-30 or TSP))
s = 4.8 mean % silt content of unpaved roads
b = 0.5 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.4 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 30.00 tons average vehicle weight
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

$$\frac{15.19 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 6.65 \text{ tons/yr}$$

This method has a lower quality rating than Method 1.

Method 2: $E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] \cdot [(Mdry/0.2)^c]\} \cdot [(365-p)/365]$

= 9.99 lb/mile

where k = 10 (particle size multiplier for PM-10 (k=10 for PM-30 or TSP))
s = 4.8 mean % silt content of unpaved roads
b = 0.5 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.4 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 30.00 tons average vehicle weight
Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)
p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)

$$\frac{9.99 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 4.38 \text{ tons/yr}$$

Summary of TSP from Unpaved Roads (tons/year)

Daewoo Crawler	2.42
Daewoo Forklift	2.73
Daewoo Loader	2.29
Semi-Trucks	4.38
Total	11.8

PM-10
Unpaved Roads

Daewoo Crawler

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 13.2.2 (Supplement E, 9/98).

Two methods are provided for calculating emissions. The first does not consider natural mitigation due to precipitation.

$$\begin{aligned} & 1 \text{ trip/hr} \times \\ & 0.05 \text{ mile/trip} \times \\ & 2 \text{ (round trip)} \times \\ & 8760 \text{ hr/yr} = \end{aligned} \quad \begin{aligned} & 876 \text{ miles per year} \end{aligned}$$

Method 1: $E_f = k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] \cdot [(M/0.2)^c]$

= 1.95 lb/mile

where k = 2.6 (particle size multiplier for PM-10 (k=10 for PM-30 or TSP))
s = 4.8 mean % silt content of unpaved roads
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 9.15 tons average vehicle weight
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

$$\frac{1.95 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.85 \text{ tons/yr}$$

This method has a lower quality rating than Method 1.

Method 2: $E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] \cdot [(Mdry/0.2)^c]\} \cdot [(365-p)/365]$

= 1.95 lb/mile

where k = 2.6 (particle size multiplier for PM-10 (k=10 for PM-30 or TSP))
s = 4.8 mean % silt content of unpaved roads
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 9.15 tons average vehicle weight
Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)
p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)

$$\frac{1.95 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.85 \text{ tons/yr}$$

PM-10
Unpaved Roads

Daewoo Forklift

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 13.2.2 (Supplement E, 9/98).

Two methods are provided for calculating emissions. The first does not consider natural mitigation due to precipitation.

$$\begin{aligned} & 1 \text{ trip/hr} \times \\ & 0.05 \text{ mile/trip} \times \\ & 2 \text{ (round trip)} \times \\ & 8760 \text{ hr/yr} = \end{aligned} \quad \begin{aligned} & 876 \text{ miles per year} \end{aligned}$$

Method 1: $E_f = k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] \cdot [(M/0.2)^c]$

= 2.15 lb/mile

where k = 2.6 (particle size multiplier for PM-10 (k=10 for PM-30 or TSP))
s = 4.8 mean % silt content of unpaved roads
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 11.69 tons average vehicle weight
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

$$\frac{2.15 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.94 \text{ tons/yr}$$

This method has a lower quality rating than Method 1.

Method 2: $E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] \cdot [(Mdry/0.2)^c]\} \cdot [(365-p)/365]$

= 2.15 lb/mile

where k = 2.6 (particle size multiplier for PM-10 (k=10 for PM-30 or TSP))
s = 4.8 mean % silt content of unpaved roads
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)
W = 11.69 tons average vehicle weight
Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)
p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)

$$\frac{2.15 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.94 \text{ tons/yr}$$

PM-10
Unpaved Roads

Daewoo Loader

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 13.2.2 (Supplement E, 9/98). Two methods are provided for calculating emissions. The first does not consider natural mitigation due to precipitation.

$\begin{aligned} &1 \text{ trip/hr} \times \\ &0.05 \text{ mile/trip} \times \\ &2 \text{ (round trip) } \times \\ &8760 \text{ hr/yr} = \end{aligned}$		$876 \text{ miles per year}$		<p>This method has a lower quality rating than Method 1.</p>	
Method 1:	$E_f = k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M/0.2)^c]$	Method 2	$E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(Mdry/0.2)^c]\} \cdot [(365-p)/365]$		
	= 1.87 lb/mile		= 1.87 lb/mile		
where k =	2.6 (particle size multiplier for PM-10 (k=10 for PM-30 or TSP))	where k =	2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)		
s =	4.8 mean % silt content of unpaved roads	s =	4.8 mean % silt content of unpaved roads		
b =	0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)	b =	0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)		
c =	0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)	c =	0.3 TSP		
W =	8.20 tons average vehicle weight	W =	8.20 tons average vehicle weight		
M =	0.2 surface material moisture content, % (default is 0.2 for dry conditions)	Mdry =	0.2 surface material moisture content, % (default is 0.2 for dry conditions)		
			p =	number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)	
$\frac{1.87 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.82 \text{ tons/yr}$		$\frac{1.87 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.82 \text{ tons/yr}$			

PM-10
Unpaved Roads

Semi-Trucks

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 13.2.2 (Supplement E, 9/98). Two methods are provided for calculating emissions. The first does not consider natural mitigation due to precipitation.

$\begin{aligned} &1 \text{ trip/hr} \times \\ &0.05 \text{ mile/trip} \times \\ &2 \text{ (round trip) } \times \\ &8760 \text{ hr/yr} = \end{aligned}$		$876 \text{ miles per year}$		<p>This method has a lower quality rating than Method 1.</p>	
Method 1:	$E_f = k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M/0.2)^c]$	Method 2	$E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(Mdry/0.2)^c]\} \cdot [(365-p)/365]$		
	= 3.14 lb/mile		= 3.14 lb/mile		
where k =	2.6 (particle size multiplier for PM-10 (k=10 for PM-30 or TSP))	where k =	2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)		
s =	4.8 mean % silt content of unpaved roads	s =	4.8 mean % silt content of unpaved roads		
b =	0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)	b =	0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)		
c =	0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)	c =	0.3 TSP		
W =	30.00 tons average vehicle weight	W =	30.00 tons average vehicle weight		
M =	0.2 surface material moisture content, % (default is 0.2 for dry conditions)	Mdry =	0.2 surface material moisture content, % (default is 0.2 for dry conditions)		
			p =	number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)	
$\frac{3.14 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 1.37 \text{ tons/yr}$		$\frac{3.14 \text{ lb/mi} \times 876 \text{ mi/yr}}{2000 \text{ lb/ton}} = 1.37 \text{ tons/yr}$			

Summary of PM-10 from Unpaved Roads (tons/year)

Daewoo Crawler	0.855
Daewoo Forklift	0.943
Daewoo Loader	0.818
Semi-Trucks	1.374
Total	3.99

**Appendix A: Emission Calculations
Baghouse Operations**

Page 7 of 9 TSD App A

Company Name: Midwest Rail, Inc.
Address City IN Zip: 1539 Estella Avenue, Fort Wayne, Indiana 46803
FESOP: F 003-11492
Plt ID: 003-00307
Reviewer: Mark L. Kramer
Date: October 25, 1999

Unit ID	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	Emission Rate before Controls (lb/hr)	Emission Rate before Controls (tons/yr)	Emission Rate after Controls (lb/hr)	Emission Rate after Controls (tons/yr)
Bar Saw - Baghouse #1 (1951 M)	99.0%	0.014080	6212.0	74.970	328.4	0.750	3.28
Wheelabrator & Del Saw Baghouse #2 (1950 A)	99.0%	0.004470	10362.0	39.70	173.89	0.397	1.739
Bar and Rail Blasters Baghouse #3 (2003 M)	99.0%	0.000440	4000.0	1.509	6.608	0.015	0.066
Miter Wet Cut Saw Baghouse #4 (2004 M)	99.0%	0.000517	2000.0	0.887	3.88	0.0089	0.039
Straight Wet Cut Saw Baghouse #5 (2005 M)	99.0%	0.000496	2000.0	0.850	3.723	0.0085	0.037
Pedestal Grinder Cyclone (2001 M)	70.0%	0.073900	854.0	1.80	7.90	0.541	2.37
Total							7.53

Methodology

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (sq. ft.) ((cub. ft./min.)/sq. ft.) (60 min/hr) (lb/7000 grains)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Allowable Rate of Emissions

Process Description	Control Device	Process Rate	Process Weight Rate	Allowable Emissions	Potential Emissions After Control
		(lbs/hr)	(tons/hr)	(lbs/hr)	(lbs/hr)
Bar Saw - Baghouse #1	1951 M	1300	0.650	3.07	0.750
Wheelabrator - Baghouse #2	1950 A	1300	0.650	3.07	0.397
Del Saw - Baghouse #2	1950 A	18800	9.400	18.4	
Bar Blaster Baghouse #3	2003 M	1300	0.650	3.07	0.015
Rail Blaster Baghouse #3	2003 M	18800	9.400	18.4	
Miter Wet Cut Saw Baghouse #4	2004 M	18800	9.400	18.4	0.009
Straight Wet Cut Saw Baghouse #5	2005 M	18800	9.400	18.4	0.009
Pedestal Grinder - Cyclone	2001M	1300	0.650	3.07	0.541
Rail Grinder	None	18800	9.400	18.4	0.243
Bar Grinder	None	1300	0.650	3.07	0.097

Methodology

Allowable Emissions = 4.10(Process Weight Rate)^{0.67}

Rail and Bar Grinders Emission Calculations

	# of units/hr	Volume of Metal Ground (ft3/unit)	Volume Ground/hr (ft3/hr)	Density of Steel (lbs/ft3)	PM Emissions (lbs/hr)	PM Emissions (tons/yr)
Rail Grinder	10	0.0005	0.005	486.72	0.243	1.066
Bar Grinder	20	0.0001	0.002	486.72	0.097	0.426

Assume 10% of metal ground is emitted because most of the ground steel falls to the ground

Pedestal Grinder Emission Calculations

	Density (lbs/ft3)	PM Collected (ft3/hr)	Weight Collected (lbs/hr)	Control Eff (%)	Potential PM Emissions Before Control (tons/yr)	Potential PM Emissions After Control (tons/yr)
Pedestal Grinder	14.96	0.0844	1.26225	70.00%	7.90	2.37

Based on 13.5 ft3 collected/160 hours

Wheelabrator, Bar and Rail Blasters

	lbs of shot or grit per hour	Stappa Alapco Section 3 lbs of PM per lb of shot or grit	lb of PM-10 per lb of PM	Control Eff (%)	Potential PM Emissions Before Control (tons/yr)	Potential PM Emissions After Control (tons/yr)	Potential PM-10 Emissions Before Control (tons/yr)	Potential PM-10 Emissions After Control (tons/yr)
Wheelabrator	400	0.004	0.86	99.00%	7.01	0.070	6.03	0.060
Bar Blaster	50	0.01	0.7	99.00%	2.190	0.022	1.533	0.015
Rail Blaster	100	0.01	0.7	99.00%	4.380	0.044	3.066	0.031

Saws

	Weight Per Inch of Rail or Bar (lbs/in)	Blade Width (in)	Weight of Steel Cut + Blade Loss (lbs)	Cuts Per Hour	Integral Wet Control (%)	Capture or Control Eff (%)	Potential PM Emissions Before Control (tons/yr)	Potential PM Emissions After Control (tons/yr)
Del	3.92	0.375	2.541	15	0.00%	99.00%	166.97	1.670
Straight (integral wet)	3.92	0.21875	1.135	15	95.00%	99.00%	3.73	0.037
Miter (integral wet)	3.92	0.21875	1.191	15	95.00%	99.00%	3.91	0.039
Bar	1.81	0.21875	1.021	73.5	0.00%	99.00%	328.67	3.29

	Cuts/Blade	Blade Weight Loss (lbs)	Loss per Cut (lbs)
Del	14.00	15	1.071
Straight (integral wet)	18.00	5	0.278
Miter (integral wet)	21	7	0.333
Bar	24	15	0.625

SUMMARY

Potential to Emit Before Controls (tons per year)

Facility	PM	PM-10	SO ₂	NO _x	VOC	CO	Manganese Compounds	Total HAPs
Natural Gas Combustion	0.039	0.156	0.012	2.050	0.113	1.720	0.000008	0.039
Surface Coating	0.668	0.668	0.000	0.000	23.600	0.000	0.000	0.000
Bar Saw	328.4	328.4	0.000	0.000	0.000	0.000	3.940	3.940
Wheelabrator Blaster	7.01	6.027	0.000	0.000	0.000	0.000	0.084	0.084
Pedestal Grinder	7.898	7.898	0.000	0.000	0.000	0.000	0.095	0.095
Del Saw	167.0	167.0	0.000	0.000	0.000	0.000	2.004	2.004
Bar Blaster	2.19	1.53	0.000	0.000	0.000	0.000	0.026	0.026
Rail Blaster	4.38	3.07	0.000	0.000	0.000	0.000	0.053	0.053
Bar Grinder	0.426	0.426	0.000	0.000	0.000	0.000	0.005	0.005
Rail Grinder	1.07	1.07	0.000	0.000	0.000	0.000	0.013	0.013
Straight Wet Cut Saw	3.73	3.73	0.000	0.000	0.000	0.000	0.045	0.045
Miter Wet Cut Saw	3.91	3.91	0.000	0.000	0.000	0.000	0.047	0.047
Unpaved Roads	11.800	3.990	0.000	0.000	0.000	0.000	0.000	0.000
Other Insignificant Activities	2.000	2.000	0.000	0.000	2.000	0.000	0.000	1.000
Total with Fugitives	540.457	529.812	0.012	2.050	25.713	1.720	6.311	7.350

Note: Manganese Compounds are 1.8% of PM

SUMMARY

Potential to Emit After Controls (tons per year)

Facility	PM	PM-10	SO ₂	NO _x	VOC	CO	Manganese Compounds	Total HAPs
Natural Gas Combustion	0.039	0.156	0.012	2.050	0.113	1.720	0.000008	0.039
Surface Coating	0.668	0.668	0.000	0.000	23.600	0.000	0.000	0.000
Bar Saw	3.28	3.28	0.000	0.000	0.000	0.000	0.039	0.039
Wheelabrator Blaster	0.070	0.060	0.000	0.000	0.000	0.000	0.001	0.001
Pedestal Grinder	2.37	2.37	0.000	0.000	0.000	0.000	0.028	0.028
Del Saw	1.67	1.67	0.000	0.000	0.000	0.000	0.020	0.020
Bar Blaster	0.022	0.015	0.000	0.000	0.000	0.000	0.0003	0.0003
Rail Blaster	0.044	0.031	0.000	0.000	0.000	0.000	0.001	0.001
Bar Grinder	0.426	0.426	0.000	0.000	0.000	0.000	0.005	0.005
Rail Grinder	1.066	1.066	0.000	0.000	0.000	0.000	0.013	0.013
Straight Wet Cut Saw	0.037	0.037	0.000	0.000	0.000	0.000	0.0004	0.0004
Miter Wet Cut Saw	0.039	0.039	0.000	0.000	0.000	0.000	0.0005	0.0005
Subtotal w/o Fugitives-PSD Def	9.734	9.822	0.012	2.050	23.713	1.720	0.108	0.147
Unpaved Roads	11.800	3.990	0.000	0.000	0.000	0.000	0.000	0.000
Other Insignificant Activities	2.000	2.000	0.000	0.000	2.000	0.000	0.000	1.000
Total w/Fugitives	23.534	15.812	0.012	2.050	25.713	1.720	0.108	1.147